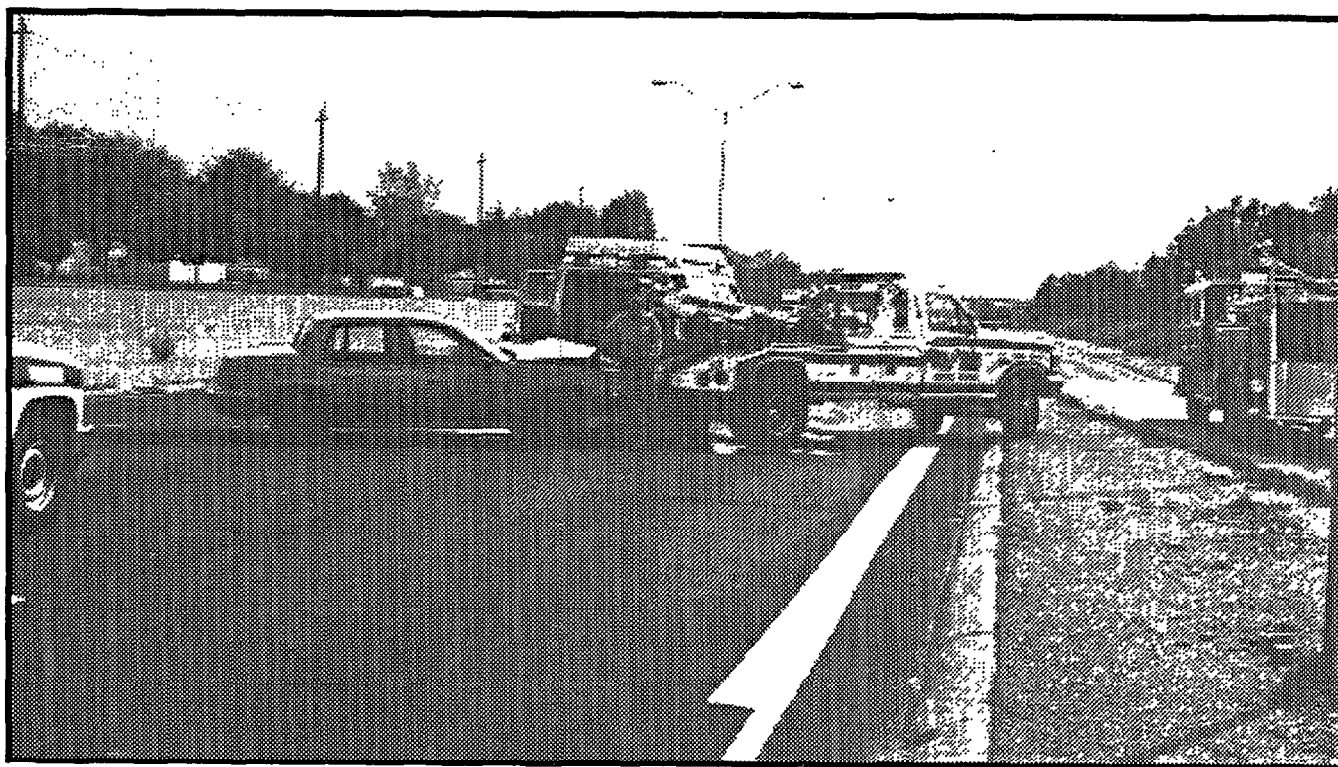




Statewide Incident Management Program Including the Detroit Metropolitan Area



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FOREWORD

This brochure outlines the different projects and programs related to the highway incident management program in the metropolitan Detroit area and in the State of Michigan. Currently these programs are under various stages of planning, development and implementation by the Michigan Department of Transportation (MDOT). Several programs involve the Federal Highway Administration, Macomb, Oakland, and Wayne County Road Commissions, City of Detroit, Michigan State Police, local enforcement agencies, AAA of Michigan, Southeast Michigan Council of Governments (SEMCOG), and MDOT.

The information provided here is a periodic update on the status of various programs and projects. Additional information can be obtained by contacting Dr. Kunwar Rajendra, Engineer of Transportation Systems, at (517) 373-2247 or (313) 256-9800.

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INTRODUCTION

A highway incident is any non-recurrent event which causes reduction in roadway capacity. Everyday traffic incidents impede mobility on urban, suburban and rural highways. As a result, it costs substantially more for the traveling public to use these roads. A delivery truck, delayed because of a stalled vehicle or flat tire up ahead, can cost an employer an estimated \$60 an hour. Multiply this by millions of times a year, and the staggering cost of roadway accidents becomes clear.

These costs impact everyone, not just commercial drivers who lose valuable time on the road. Millions of dollars are lost every year by commuters and other travellers caught in traffic jams. It is estimated that over 50 per cent of all motorist delay on the freeway system is incident related. With passenger car drivers wasting an estimated \$10 an hour when stuck in traffic, everyone loses. Society as a whole is the loser too, when fuel is unnecessarily burned and increased pollutants foul the air.

Incidents are not like the weather, although they are sometimes caused by it. Something can be done about them. In fact the government can do a lot about them and gain a great deal of credit. The nation's roadways are among the most visible parts of its infrastructure and when operated efficiently will bring praise to the agencies responsible.

Incident management is the spectrum of activities involved in detecting, responding to and clearing roadway incidents. It is the coordinated preplanned use of human and technological resources to restore full capacity after an incident occurs and to provide motorists with information and direction until the incident is cleared. Incident management programs vary widely in cost and sophistication, but all share the following common elements:

- Detection
- Verification
- Response
- Removal
- Traffic Management
- Information to Motorists

At the least, incident management can save the public untold hours and dollars; at best it will save lives by minimizing the time that dangerous obstructions remain on the roadways.

The current Detroit freeway operations system was earlier known as the SCANDI (Surveillance Control and Driver Information) and it has been in operation for over twenty years. The system includes over 32 miles of I-94 (Ford freeway), M-10

(Lodge Freeway), part of I-75 and I-375 (Chrysler Freeway) in Detroit. The system uses inductive loops in the pavement, ramp metering, closed-circuit TV cameras and changeable message signs. The system has been extremely effective in the detection and management of incidents in the metropolitan Detroit area by fast and accurate communication of information to police and the media.

The Michigan Department of Transportation (MDOT) has been actively involved in the incident management program. Metropolitan Detroit includes, for the purpose of incident management, over 60 cities and villages and counties.

The following list represents important data needed for an incident management program for the main throughway and alternate routes.

Right-of-way width	Speed restrictions
Number of lanes	Signal timings
Shoulders	Bridge load restrictions
Traffic volumes	Spring load restrictions
Spacing of exits	Bridge under clearance
HAZMAT route	Railroad crossings
Political jurisdictions	Past incidents frequency
Road commission jurisdiction	
Law enforcement jurisdiction	

II. INCIDENT MANAGEMENT PROGRAMS IN THE METROPOLITAN DETROIT AREA

A. NATIONAL INCIDENT MANAGEMENT CONFERENCE

In November 1991 a National Incident Management Conference, sponsored by MDOT jointly with the National Incident Management Coalition, FHWA, and several other agencies, was held in Detroit. The conference was attended by over 200 professionals nationwide. Its proceedings were documented and published.

Recently, MDOT has received approval from the National Incident Management Coalition for support of hosting another conference in Detroit in Fall 1995. Planning for this important meeting is underway.

B. METROPOLITAN DETROIT INCIDENT MANAGEMENT- COORDINATING COMMITTEE

The committee, with over 40 representatives from public and private agencies including County Road Commissions, City of Detroit, Michigan State Police, AAA of Michigan, FHWA, MDOT, SEMCOG and several other agencies, was established in 1991 and it has continued its role of coordinating activities

involving incident management. More importantly, the committee has taken the role of creating guidelines and preparing an incident management plan for the greater Detroit metropolitan area. The Incident Management Committee holds monthly meetings at the Michigan Intelligent Transportation Systems Center (MITSC) to coordinate and discuss the participating agencies' roles in incident management.

C. INCIDENT MANAGEMENT ROADSHOW

In June 1992 the Michigan Department of Transportation hosted the Federal Highway Administration incident roadshow. Members from the Michigan State Police and local police departments, county road commissions and city DOT's and state DOT's were represented. The roadshow's greatest benefit was the interaction between the various agencies that take part in response and traffic management of incidents.

With the interactions of the participating agencies, the following recommendations were made:

1. Incident management should be coordinated through a state agency (State Police or MDOT);
2. A small incident management project be started first then expanded to encompass the whole metropolitan area;
3. An inventory of responding agencies be prepared and updated.

D. INCIDENT MANAGEMENT PLAN FOR I-75

A state-of-the-art incident management plan was completed by a consultant for the twenty-one miles of I-75 from I-94 north to Adams Road in September 1994. It will serve as a guideline for preparing a detailed plan for the rest of metropolitan Detroit and also serve as a key element in the development of an ATMS coalition to foster additional ATMS programs and projects. The plan will also become incorporated into the Congestion Management Plan required for the area and the State of Michigan under the provisions of the Intermodal Surface Transportation Efficiency Act (ISTEA).

E. ADVANCED TRAFFIC MANAGEMENT SYSTEM/ADVANCED TRAVELER INFORMATION SYSTEM (ATMS/ATIS)

Having an ATMS/ATIS in place in the metropolitan Detroit area will greatly improve the environment for an incident management plan. Currently, MDOT is in the process of contracting a system integrator to engineer, procure,

install, and ensure warranty coverage for the proposed expansions of traffic surveillance on the freeways and state trunklines in metropolitan Detroit area. The priority corridors for deployment will consist of 150 miles on I-96, I-696, I-75, I-94, I-275, I-375, M-10, M-59, and M-39. Coverage will include mainline detectors - inductive loops and machine vision, Changeable Message Signs (CMS), Highway Advisory Radios (HAR), ramp metering, and Closed Circuit Television (CCTV).

The system' will provide MDOT personnel the capability to detect and verify recurrent and non-recurrent traffic congestion for efficient traffic management by utilizing advanced traveler information systems. Additionally, the system will have the capability to manage mainline work zones, calculate mainline volume demand and predict traffic flow patterns for scheduled events, planned work/construction zones, and other special events.

F. BLUEPRINT FOR ACTION

In March 1993 the Metropolitan Detroit Incident Management Coordinating Committee hosted a kickoff orientation involving 65 people representing 33 agencies and private companies involved in incident management. Eight task forces with outlined objectives were established. These task forces are named: Detection/Verification, Response, Removal, Alternate Routes, Information to Motorists, Legal Issues, Jurisdictional/Boundary, and Budget. Each task force looked at the existing system of incident management, recommended improvements and expansion and suggested responsibility of implementation-

The Coordinating Committee reviewed the recommendations, developed a consensus on priorities and time frames for implementation, identified lead agencies, and estimated costs.

The proceedings have been documented and are published in a document, "Blueprint For Action" for distribution to all involved agencies in order to expedite the process of producing an incident management plan for greater Detroit. Also, the FHWA has mentioned the "Blueprint for Action" as an "incident management success story" in a brochure entitled "National incident Management Coalition."

Copies of the Blueprint for Action are available upon request from the Lansing office address listed on the front of this brochure.

G. AD HOC SUBCOMMITTEES

1. **OUTREACH ACTIVITIES:** The Metropolitan Detroit Incident Management Coordinating Committee has commissioned six of its members to present the "Blueprint for Action" to all different agencies and people involved in incident management. There have been seven presentations to date.
2. **LEGAL ISSUES:** This subcommittee is currently working on the "Blueprint For Action" recommendation, "revise the 48 hour limit for abandoned vehicles to 4 hours." The MDOT, Michigan State Police, Detroit Metropolitan Police, and the American Automobile Association are potential sponsors for this proposed legislative change.

H. FREEWAY COURTESY PATROL

In September **1994** the Detroit Alliance established a courtesy patrol pilot project with two well-equipped vans for portions of I-75 in Detroit. The vans operate from 4:00 p.m. to 12:00 a.m. Tuesday through Saturday. Sponsorship includes AAA, Blue Cross Blue Shield, Campbell & Co., Chrysler Corporation, Comerica Bank, General Motors, Ford Motors, OHSP, MDOT, and NBD Bank. In a ten-week period, the vans assisted a total of 564 vehicles and saved three lives.

I. FUTURE PLANS FOR THE DETROIT METROPOLITAN AREA

Future plans for incident management in the Detroit metropolitan area include the maximum utilization of the Michigan Intelligent Transportation Systems Center (MITSC) as a clearinghouse for traffic information and dissemination. This will be achieved through coordination of the surveillance projects' five-year expansion plan to include over 230 miles of freeways. The coordination of clearing the incident efficiently, communication of when to send vehicles on alternative routes, the maintenance of the freeways and alternative routes, and the education of all parties involved will be centrally managed.

III. STATEWIDE INCIDENT MANAGEMENT PLANS

A CURRENT STATUS

Currently, over 450 miles of state trunklines in Michigan could benefit from incident management plans. Plans for another 175 miles of state trunklines are in progress. The accompanying tables on pages 7 and 8 summarize the status of plans statewide.

B. EVALUATION

In an effort to improve the systems operations, the Quality Mission Team in partnership with the FHWA is evaluating the existing incident management plans. Meetings have been held with the County Road Commissions, State Police, County Sheriffs, and Emergency Management Coordinators. The objective is to use the knowledge to promote uniformity in the design of future programs. The issues to be addressed are how well these programs are performing in terms of communication and coordination between the road agencies and the law enforcement agencies, how adequate the traffic control signing plans are, which highways should be taken up next, and what funding sources would be available for future programs.

**STATUS OF
INCIDENT MANAGEMENT PLANS**

DISTRICT	ROUTE	LIMITS	MILES	TYPE OF SIGNAGE	DATE PLAN COMPLETED
1 Crystal Falls	M-28 US-41	BR 28 W. Jct. to BR 28 E. Jct., Marquette Co.	5	Permanent hinged, flashers	1989
2 Newberry	M-28	Harvey (Marquette Co.) to Munising (Alger Co.)	40	Permanent hinged, flashers	1989
4 Alpena	I-75 US-27	Roscommon Co.	48	Temporary	90% Complete
	I-75 US-27	Crawford Co.	32	Temporary	12/1993
	I-75	Otsego Co.	26	Temporary	6/1993
5 Grand Rapids	US-31	M-45 North to I-96, Ottawa & Muskegon Co.	14	Temporary & Permanent (Hinged)	1/1992
	I-96	Muskegon, Ottawa, Kent, Ionia and Clinton Counties	90	Permanent (Hinged)	8/1/94 signs to be installed
	US-131	100th St. (Exit 72) to Post Drive (Exit 95), Kent Co.	23		Consultant, programmed for 1995

Continued . .

**STATUS OF
INCIDENT MANAGEMENT PLANS (cont.)**

DISTRICT	ROUTE	LIMITS	MILES	TYPE OF SIGNAGE	DATE PLAN COMPLETED
6 Saginaw	I-75	Genesee, Saginaw, Bay, and Arenac Counties	99	Permanent (Trail blazing)	8/1994 signs to be installed
7 Kalamazoo	I-94	Berrien, Van Buren, Kalamazoo and Calhoun Counties	122	Permanent (Trail blazing)	1/1991
8 Jackson	I-75	Monroe County	28		Consultant, Programmed for 1995
	I-96	Eaton, Ingham, & Livingston Counties	63		
	I-496	Eaton and Ingham Counties	12		
9 Metro Detroit	I-75	I-94 (Exit 53) to Adams (Exit 74), Wayne and Oakland Counties	21		9/1994

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